

Schneider's Ford Bridge

(Bald Hill Road Bridge)

Spanning Moreau River on Bald Hill Road

Jefferson City

Cole County

Missouri

HAER No. MO-42

HAER
MO,
26-JEFCI,
15-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U. S. Department of the Interior
P. O. Box 25287
Denver, Colorado 80225

HISTORIC AMERICAN ENGINEERING RECORD

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Location: Spanning the Moreau River on Bald Hill Road,
approximately 900 feet downstream from Schneider's Ford
Jefferson, Cole County, Missouri

UTM: 15.4264065.575225
Quad: Jefferson City

Date of Construction: 1897-1898 - abutments, piers, north approach, main span
1979 - south span and modifications to main span
deck
Date of modifications to the main hip verticals is
unknown.

Builder: Youngstown Bridge Company of Youngstown, Ohio

Present Owner: Cole County
Cole County Courthouse
Jefferson City, Missouri

Present Use: Vehicular traffic bridge to be replaced by new
vehicular bridge in 1988-1989, better suited to
the projected load and use needs.

Significance: Preliminary review of the Missouri Bridge Inventory on
file with DNR/HPP, Schneider's Ford Bridge is one of
few or the only one of its type in Missouri. It is an
unusual form of Pratt high through truss, exhibiting
inclined top chords which produces a single oblique
angle at the midpoint. Technically in the Parker
variation range, it appears to be a compromise between
Pratt and usual Pratt variation forms.

Historians: Thomas Gage, Ph.D and Craig Sturdevant
Environmental Research Center of Missouri, Inc.

I. HISTORY

A. Need for a Bridge

Schneider's Ford is mentioned only obliquely in the earliest surviving road petitions for this portion of Cole County (1860-1870) and was probably in use prior to that period. Through the latter 1800s, the road to the later bridge crossing belonged to the Schneider family. It became known as the Lisletown-Jefferson City Road and the southeast one-fourth of Cole County and beyond. Although a discussion of a need for a steel bridge at Schneider's Ford is not found in the county minutes, the fluctuating water level at that point, influenced by back waters of the Missouri River, make the need obvious.

B. Construction Chronology

There are three surviving county court records which reference the construction of the Schneider's Ford Bridge:

1. An entry on page 486 of Book M of the Cole County Court Minutes recording the granting of the contract for construction of a steel bridge at Schneider's Ford to the Youngstown Bridge Company of Youngstown, Ohio, for \$4,500.00 and dated August 7, 1897.
2. A road petition packet containing documents concerning the relocation of the south approach of Schneider's Ford to align with the center line of the to-be-constructed steel bridge, dated August 2, 1897.
3. A road petition packet containing documents concerning the relocation of the north approach to Schneider's Ford to align with the newly-constructed steel bridge and dated August 1, 1898.

The two road petitions fix the period of construction between August 2, 1897 (completion of survey) and August 1, 1898. Documents referencing details of the construction period do not survive. Local newspapers of this time were changing ownership and papers dating from this period are not available in accessible archives.

II. THE BRIDGE

A. Description

The Schneider's Ford Bridge is an unusual adaptation of the Pratt high through truss, exhibiting inclined top chords that produce a single oblique angle at the midpoint. Although it technically may fall within

the ranges of the Parker variations (Historic Highway Bridges in Pennsylvania, 1986), it may be seen as a compromise between the common Pratt and usual form of the Pratt variation (Comp and Jackson, 1977).

The pin connected eight panel 200-foot main span has a vertical clearance of 18 feet and a horizontal width of 15.8 feet; 14.5 feet curb to curb. The main span rests on open braced steel cylinder piers. The inclined end posts and top chords are formed of 14-inch plate steel over latticed 10-inch channel iron. The vertical posts, with the exception of the hip verticals, are formed of latticed 6-inch channel iron. The hip verticals and counter bracing are of paired 1 by 1-inch eyebars. The diagonals and bottom chords are of paired 3/4 by 3-inch eyebars. The top and bottom lateral and sway bracing are of 1-inch eyobar. The compression members of the sway bracing are of paired 3-inch angle iron. The struts are of latticed paired 3-inch angle iron. The portal bracing is a seven-panel triangular truss design, formed of paired 3-inch angle iron. The floor beams are 14-inch rolled steel I-beam. The deck is supported on 14 eight-inch I-beam stringers and eight-inch channel sections, the channel sections comprising the outermost stringers.

The 60-foot pin-connected three-panel low pratt north approach span rests on a masonry abutment. The inclined end posts and top chords are of 10-inch plate steel over latticed 6-inch channel iron. The vertical posts are of latticed paired 2-inch angle iron. The truss lacks hip verticals. The counter bracing and bottom laterals are of 1 by 1-inch eyobar. The deck supports are of the same construction as the main span.

The 60-foot south approach span, constructed in 1979 of 1 by 3-inch I-beam with an 11-panel rail composed of 3 x 4-inch angle iron, rests on the original masonry abutments.

B. Modifications to the Bridge

The main span hip verticals have been strengthened by welding spacers at 3-foot intervals. The wood deck has been replaced with asphaltic concrete over corrugated iron plates. The oak curbs were retained. The floor joists of the five south panels of the main span have been replaced with five 10-inch I-beams matching the joists supporting the deck on the new south span. The outermost iron stringers were retained.

C. Ownership and Future

The Schneider's Ford Bridge has been owned and maintained by Cole County, Missouri, since its construction in 1897-1898. The bridge

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connects an area southwest of Jefferson City to the city. This area is rapidly developing and the narrow bridge is considered to be insufficient to carry the load now being handled. A bridge replacement is currently underway. The replacement will be upstream from the existing Schneider's Ford Bridge and the old bridge will be allowed to remain while the new bridge is being built. During 1989 and following the completion of the bridge replacement, Schneider's Ford Bridge will be dismantled. No exact dates could be found for the changes in the names from Schneider's to Lisletown to Bald Hill Road.

D. Youngstown Bridge Company of Youngstown, Ohio

The only mention of the construction that built Schneider's Ford Bridge in county records is quoted below (Cole County Court Minute Book M - August 7, 1897: page 496):

"In the matter of a Steel Bridge
across the Moreau near
'Schneider's Ford'

Now at this day comes H. S. Dewey, Court Surveyor and Ex officio Bridge Commissioner and presents his report on above mentioned cause wherein he states that the Youngstown Bridge Co. of Youngstown, O. was the lowest bidder and that their bid was \$4,500 which said report is received by the Court and filed and the said H. S. Dewey, Bridge Commissioner is hereby authorized to make and sign contract...for the purposes of constructing said steel bridge across the Moreau at 'Schneider's Ford'."

Youngstown Bridge Company was previously named the Morse Bridge Company. The latter was started in 1879 and the name was changed to Youngstown Bridge Company around 1888-1889. Youngstown Bridge Company lasted for only a decade, as the company was bought out in 1900 by the large American Bridge Company (Darnell, 1984).

In Cole County, preliminary review of available county bridge records suggests that most of the late 19th and early 20th century steel truss bridges in the county were constructed by the Canton Bridge Company. The Schneider's Ford Bridge is the only bridge thus far identified as being constructed by Youngstown Bridge Co. in Cole County Missouri. The probable small number of bridges constructed in the State, along with the relatively short time span of the company, quite probably play important roles in the unique form presented by the Schneider's Ford Bridge.

III. BIBLIOGRAPHY

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